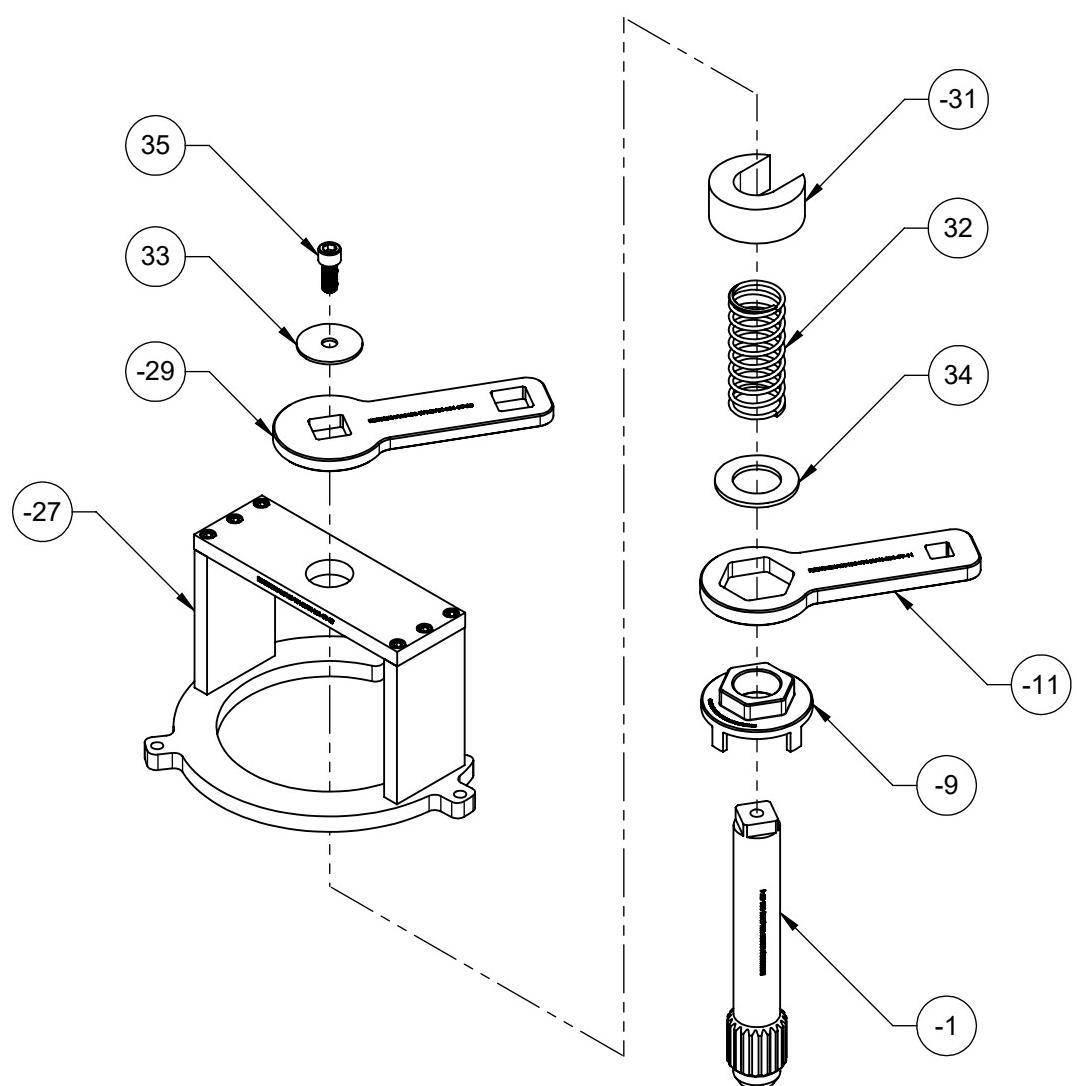
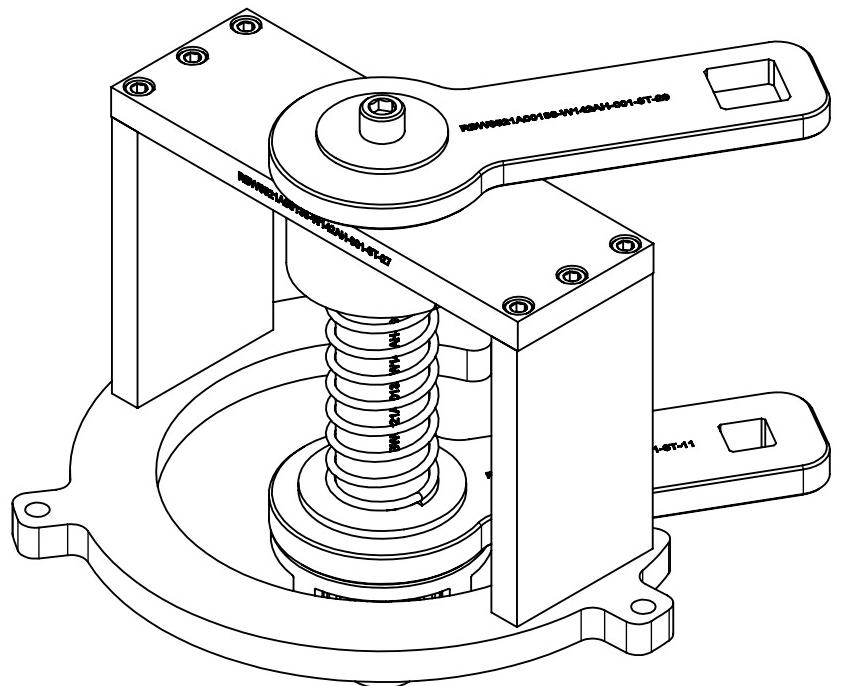


8 7 6 5 4 3 2 1

ITEM #	QTY	P/N	DESCRIPTION
-1	1	RBW6521A00138-W142AH-001-3T-1	SPLINE
-9	1	RBW6521A00138-W142AH-001-3T-9	SPANNER SOCKET
-11	1	RBW6521A00138-W142AH-001-3T-11	WRENCH
-27	1	RBW6521A00138-W142AH-001-3T-27	BASE ASSEMBLY
-29	1	RBW6521A00138-W142AH-001-3T-29	WRENCH
-31	1	RBW6521A00138-W142AH-001-3T-31	SPACER
32	1	DTSP10009-1	SPRING
33	1	AN970-5	WASHER
34	1	NAS1149F1690P (alt McMaster 98029A038)	WASHER
35	1	NAS1351-5-12P	SOCKET HEAD CAP SCREW



### RBW6521A00138-W142AH-001-3T NUT TORQUE TOOL

#### NOTES:

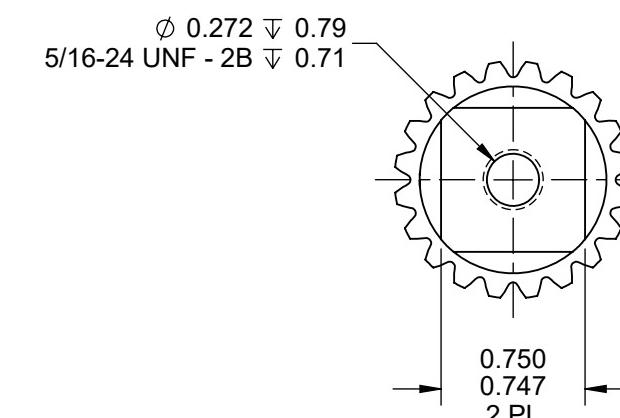
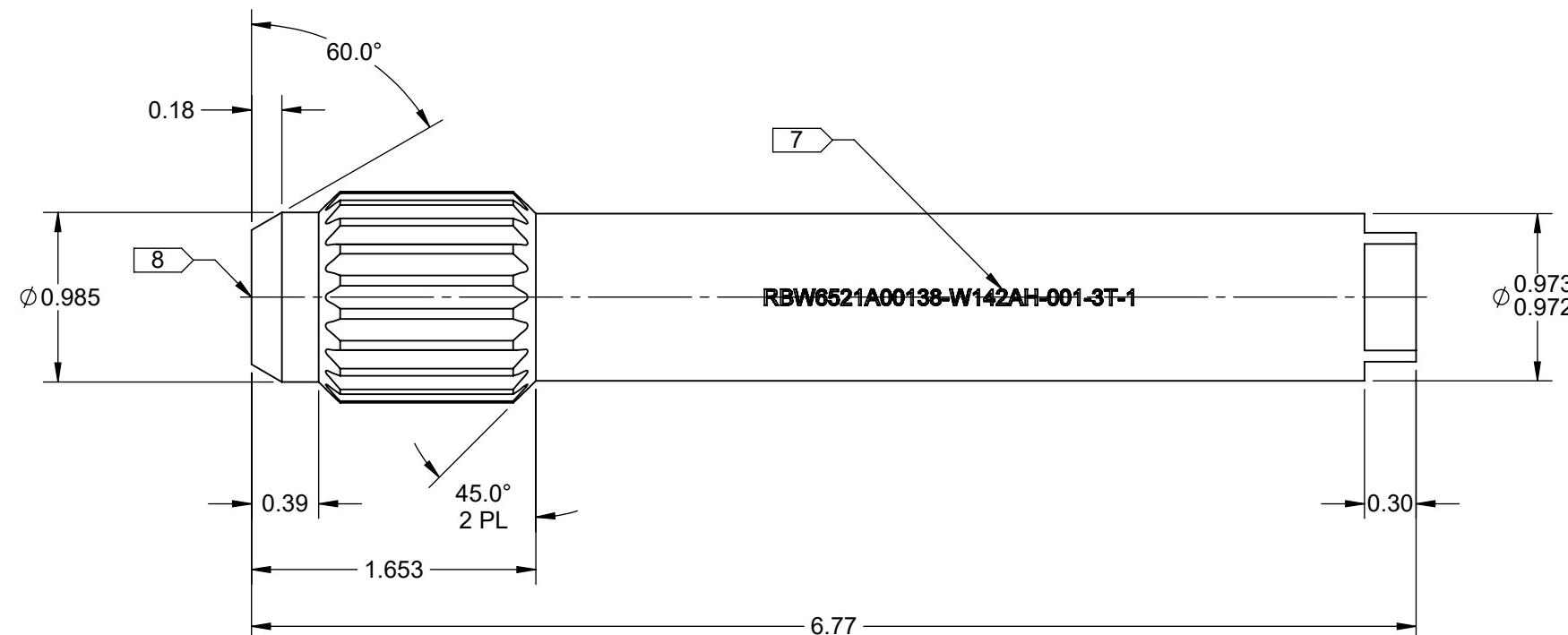
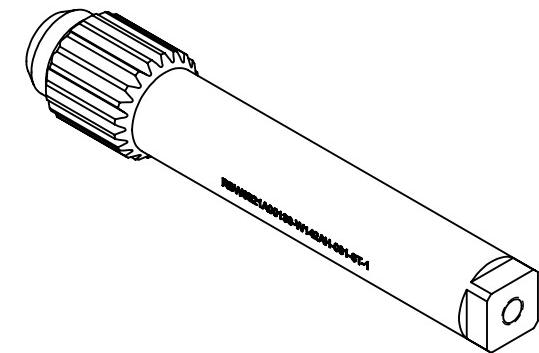
- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
 X.XX = +/- 0.01" / +/- 0.5°  
 X.XXX = +/- 0.005" / +/- 0.1°  
 X.XXXX = +/- 0.0005" / +/- 0.05°  
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: N/A
- 7) IDENTIFICATION: N/A
- 8) ASSEMBLE AS SHOWN

F	UPDATED DRAWING TEMPLATE FOR PREVIOUS REVISION REFER TO RBW6521A00138-W142AH-3T REV. 5. REFER TO CAR 20-365 FOR LIST OF CHANGES MADE			20-515	KPT
REV.	DESCRIPTION			ECN #	BY
DESIGN		KPT	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN		KPT			
CHECKED		SAD			
MFG. APPR.		FK			
APPROVED		<i>M. Lee</i>	TITLE <b>NUT TORQUE TOOL</b>		SCALE NTS
DATE		20.03.23	TOOL P/N RBW6521A00138-W142AH-001-3T		REV. F
					SHEET 1 OF 10
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**SHAFT DIN 5480 - W32 X 1.5 X 20 X 8f [Metric Dimensions]**

NUMBER OF TEETH	20
MODULE	1.5
PRESSURE ANGLE	30°
TIP DIAMETER	[31.54-31.70]
ROOT FORM CIRCLE DIAMETER	[28.93] MAX
ROOT DIAMETER	[28.01-28.70]
MAX EFFECTIVE TOOTH THICKNESS	[2.538]
MAX ACTUAL TOOTH THICKNESS	[2.521] REF
MIN ACTUAL TOOTH THICKNESS	[2.493]
MEASURING CIRCLE DIAMETER	[3.000]
MAX DIMENSION OVER MEASURING CIRCLES	[35.023] REF
MIN DIMENSION OVER MEASURING CIRCLES	[34.982]



**RBW6521A00138-W142AH-001-3T-1 SPLINE**

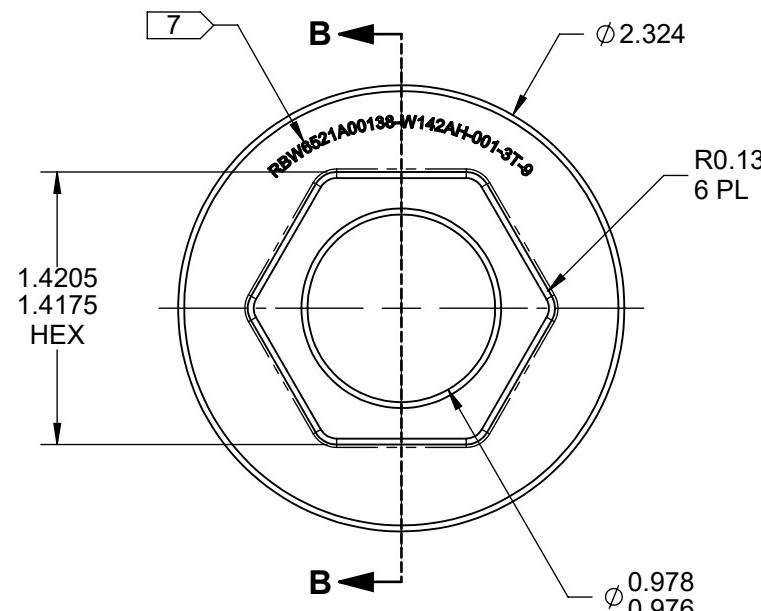
9

**NOTES:**

- 1) MATERIAL: AISI 4140 ALLOY STEEL
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: MACHINE ENGRAVE TOOL P/N, "RBW6521A00138-W142AH-001-3T-1", AS SHOWN
- 8) CENTER DRILL IS ACCEPTABLE
- 9) DIMENSIONAL LIMITS APPLY AFTER PLATING

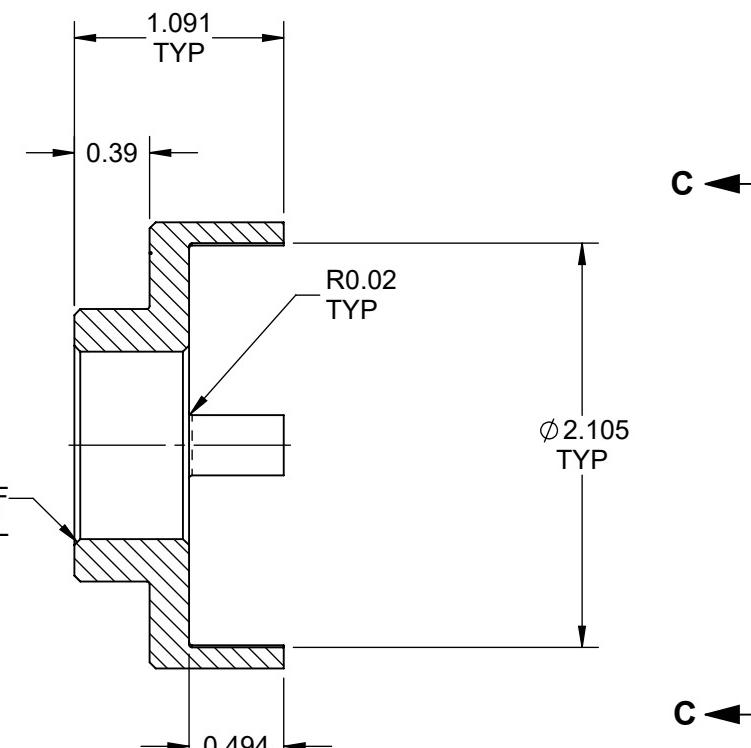
DESIGN	KPT	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA
DRAWN	KPT	
CHECKED	SAD	
MFG. APPR.	FK	
APPROVED	<i>M Lee</i>	
TOOL P/N	RBW6521A00138-W142AH-001-3T	REV. F
SHEET 2 OF 10		
TITLE	NUT TORQUE TOOL	SCALE
DATE	20.03.23	NTS
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8 7 6 5 4 3 2 1

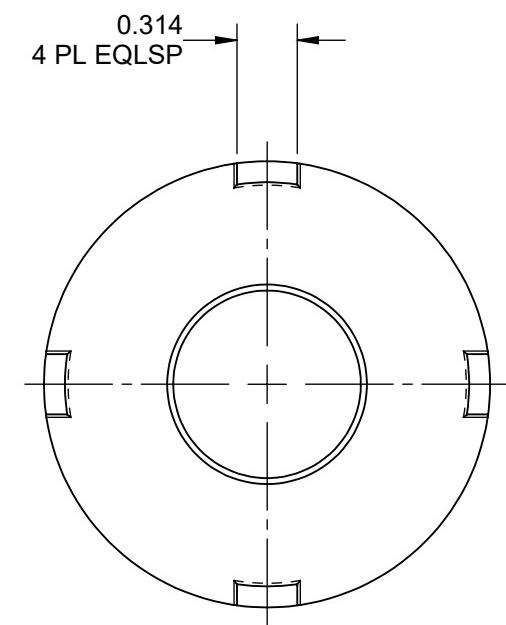


RBW6521A00138-W142AH-001-3T-9 SPANNER SOCKET

8



SECTION B-B



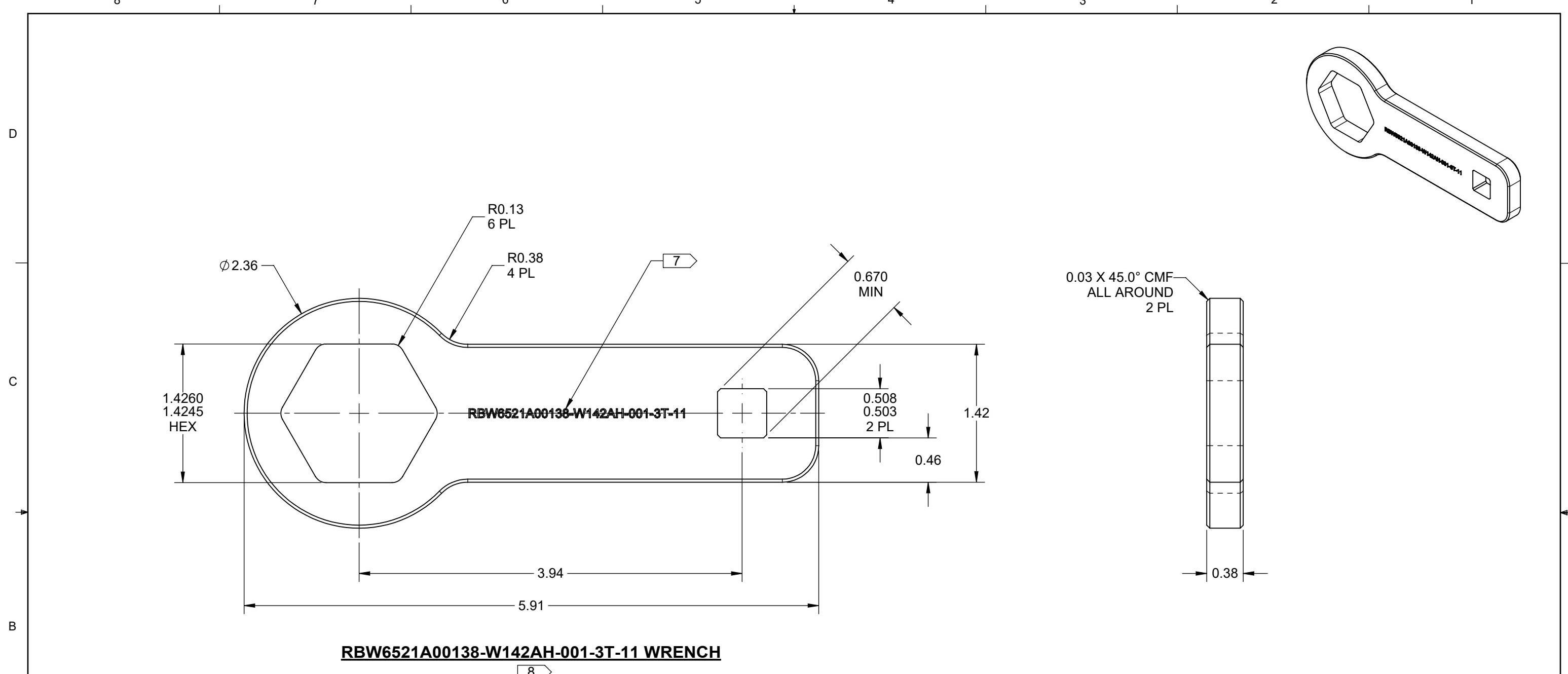
VIEW C-C

NOTES:

- 1) MATERIAL: 01 TOOL STEEL
- 2) HEAT TREAT: 48-52 RC
- 3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK P/N, "RBW6521A00138-W142AH-001-3T-9", AS SHOWN
- 8) DIMENSIONAL LIMITS APPLY AFTER PLATING

DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	REV. F	
MFG. APPR.	FK	TOOL P/N RBW6521A00138-W142AH-001-3T	
APPROVED	<i>M Lee</i>	SHEET 3 OF 10	
TITLE NUT TORQUE TOOL		SCALE NTS	
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8 7 6 5 4 3 2 1



**NOTES:**  
1) MATERIAL: AISI 4140 ALLOY STEEL  
2) HEAT TREAT: 32-36 RC

3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)

4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"

5) UNITS: INCHES UNLESS OTHERWISE NOTED

6) BREAK SHARP EDGES: 0.005 TO 0.010

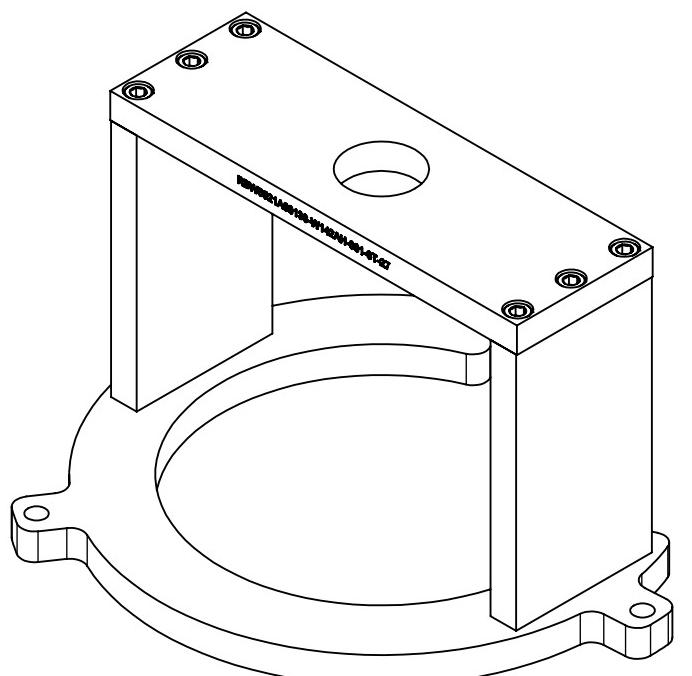
7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK P/N, "RBW6521A00138-W142AH-001-3T-11", AS SHOWN

8) DIMENSIONAL LIMITS APPLY AFTER PLATING

DESIGN	KPT	<b>DART AEROSPACE LTD</b>	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	REV. F	
MFG. APPR.	FK	TOOL P/N RBW6521A00138-W142AH-001-3T	
APPROVED	<i>M. Lee</i>	SHEET 4 OF 10	
TITLE <b>NUT TORQUE TOOL</b>		SCALE	NTS
DATE 20.03.23			
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8 7 6 5 4 3 2 1

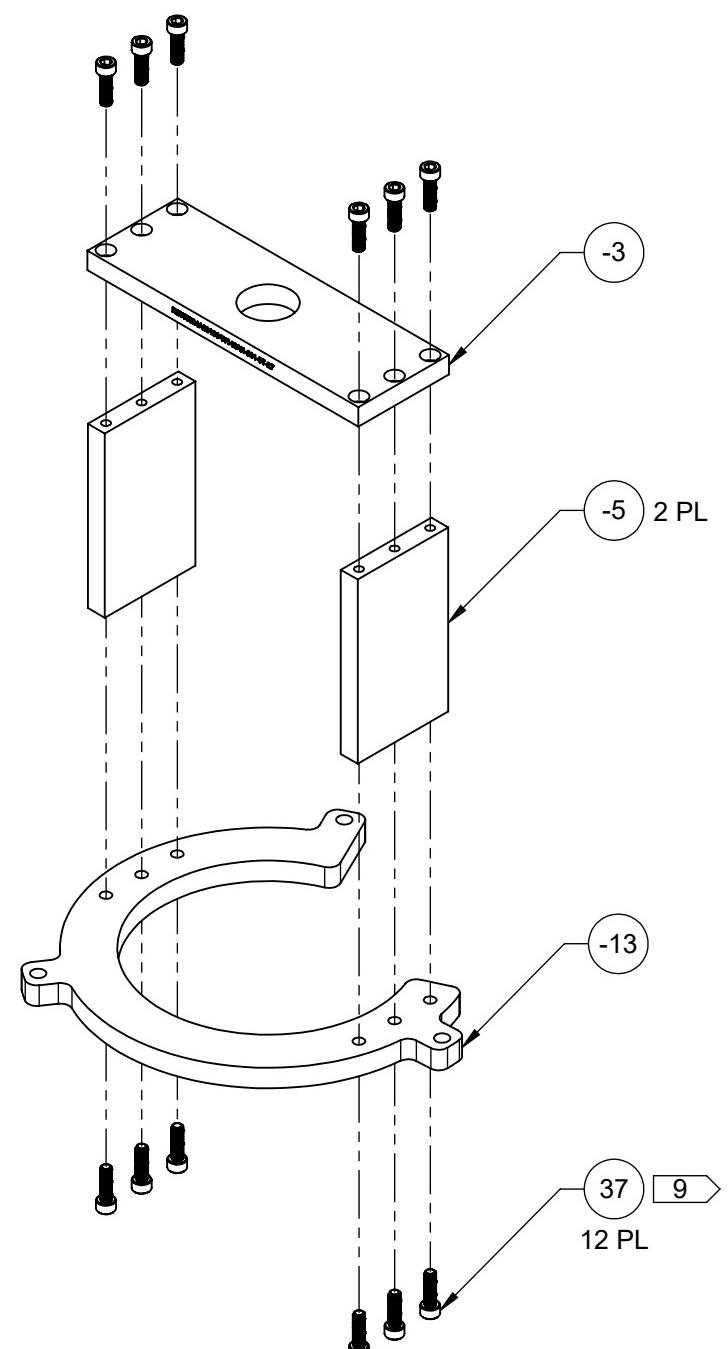
ITEM #	QTY	P/N	DESCRIPTION
-3	1	RBW6521A00138-W142AH-001-3T-3	TOP BRACE
-5	2	RBW6521A00138-W142AH-001-3T-5	SIDE BRACE
-13	1	RBW6521A00138-W142AH-001-3T-13	BASE
37	12	NAS1351-3-10P	SOCKET HEAD CAP SCREW



**RBW6521A00138-W142AH-001-3T-27 BASE ASSEMBLY**

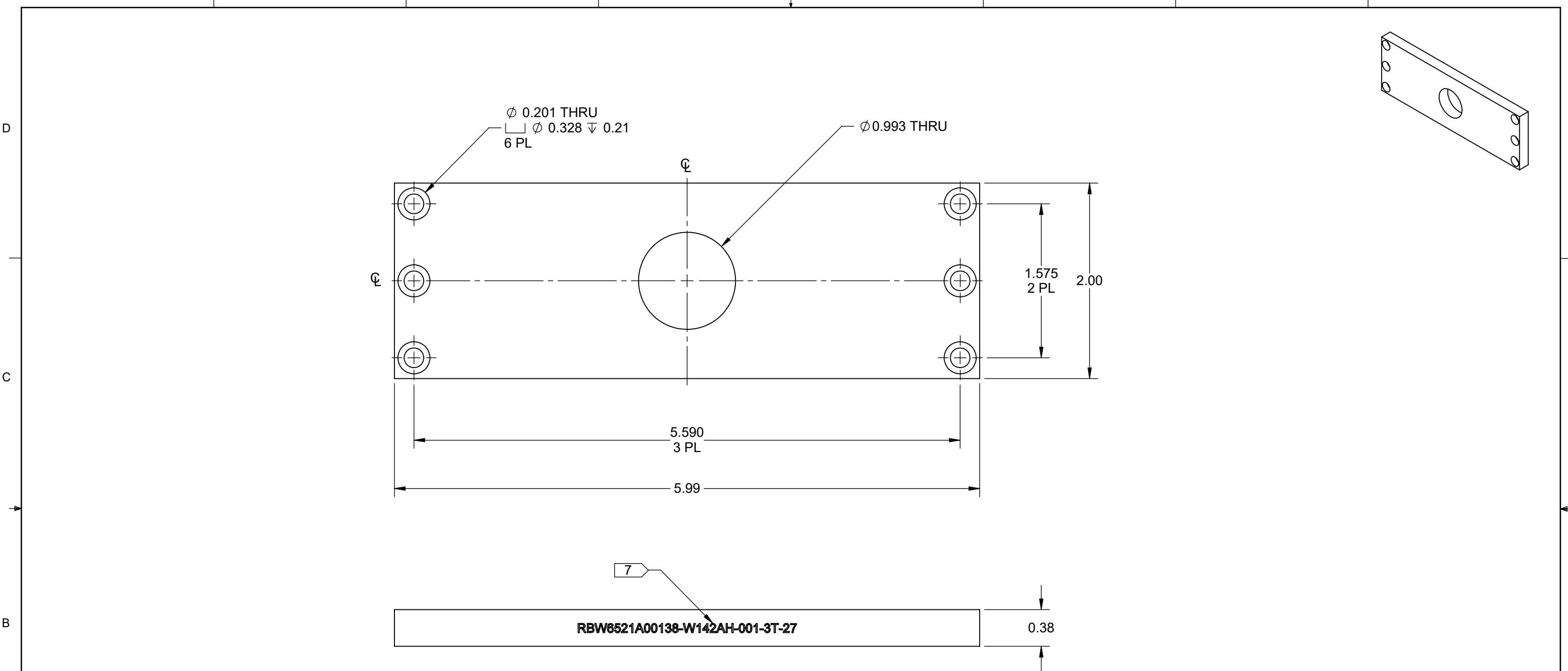
NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: N/A
- 7) IDENTIFICATION: N/A
- 8) ASSEMBLE AS SHOWN
- 9) APPLY RED THREADLOCKER LOCTITE 263/262 ON THREADS OF ITEM 37 THEN ASSEMBLE WITH ITEMS -3 AND -5. TORQUE TO 20-25 IN-LB.



DESIGN	KPT	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	KPT		
CHECKED	SAD	TOOL P/N RBW6521A00138-W142AH-001-3T	
MFG. APPR.	FK	REV. F SHEET 5 OF 10	
APPROVED	<i>M Lee</i>	TITLE <b>NUT TORQUE TOOL</b>	
DATE	20.03.23	SCALE	NTS
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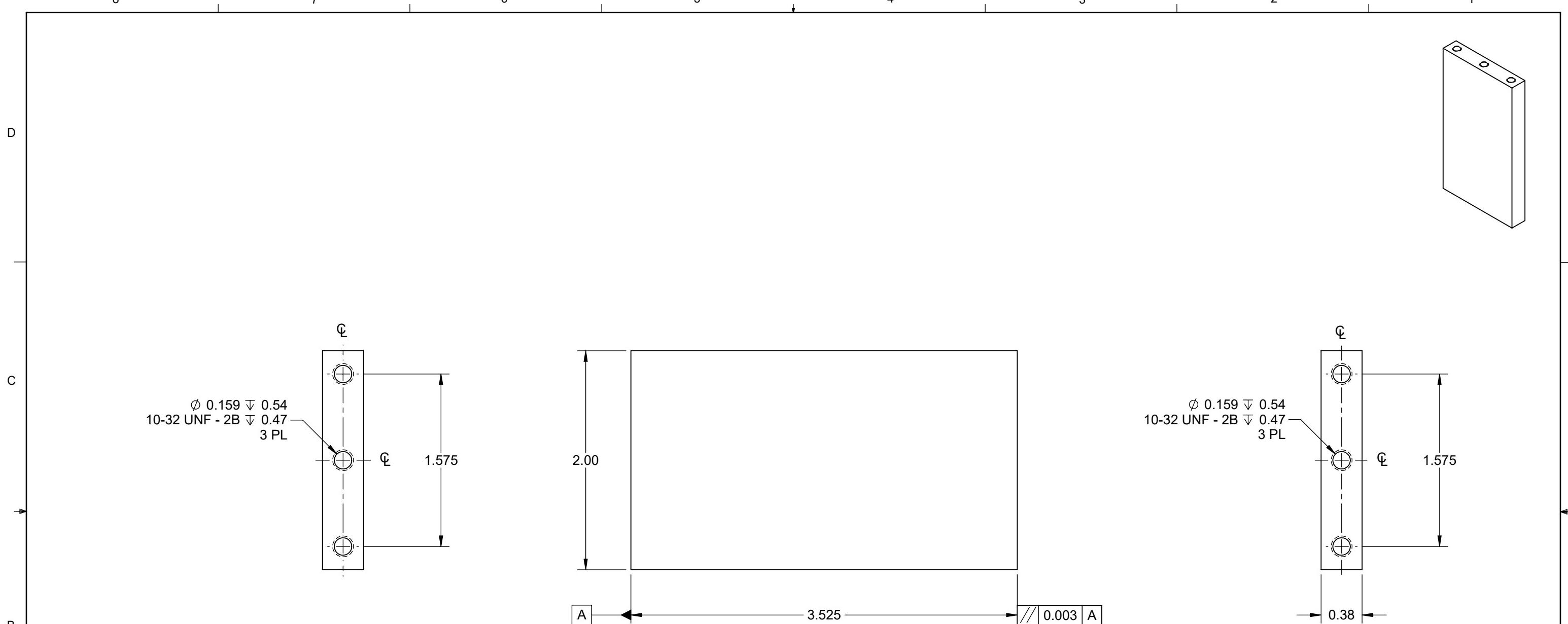


### RBW6521A00138-W142AH-001-3T-3 TOP BRACE

8 9

DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	REV. F	
MFG. APPR.	FK	TOOL P/N RBW6521A00138-W142AH-001-3T	
APPROVED	<i>M. Lee</i>	SHEET 6 OF 10	
TITLE NUT TORQUE TOOL		SCALE	NTS
DATE 20.03.23			
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### RBW6521A00138-W142AH-001-3T-5 SIDE BRACE

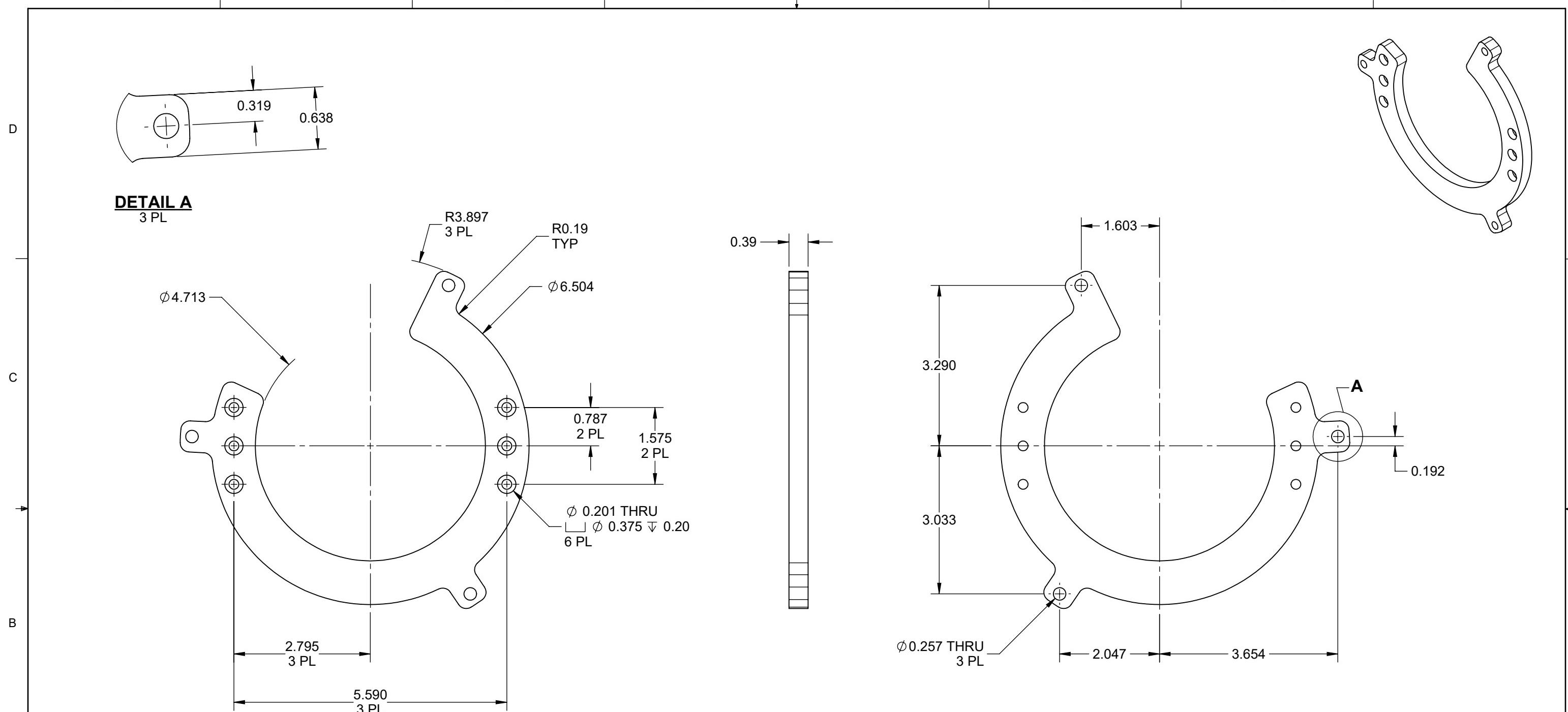
8 > 9

#### NOTES:

- 1) MATERIAL: AISI 4140 ALLOY STEEL
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: N/A
- 8) PART IS SYMMETRIC ABOUT CENTERLINES
- 9) DIMENSIONAL LIMITS APPLY AFTER PLATING

DESIGN	KPT	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA
DRAWN	KPT	
CHECKED	SAD	
MFG. APPR.	FK	
APPROVED	<i>M Lee</i>	
TITLE <b>NUT TORQUE TOOL</b>		SCALE NTS
DATE 20.03.23		
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**RBW6521A00138-W142AH-001-3T-13 BASE**

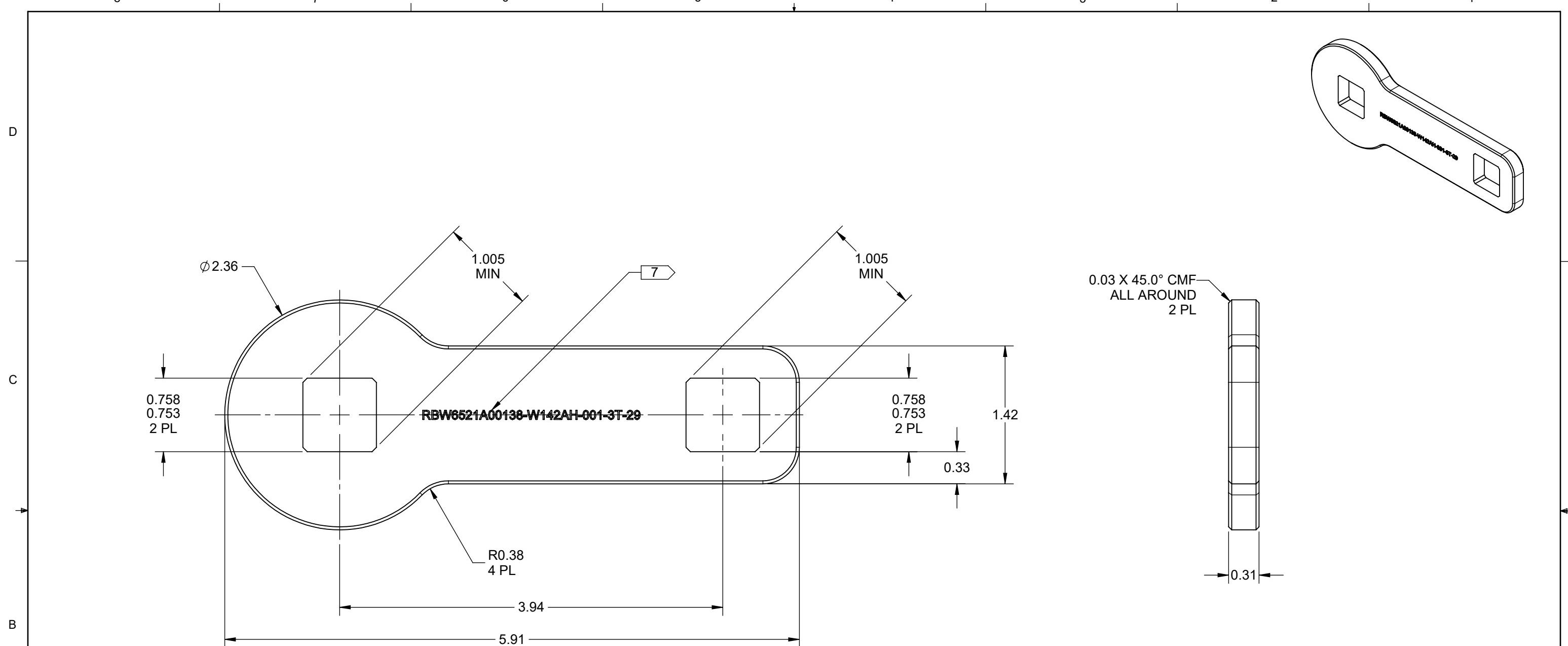
8

NOTES:

- 1) MATERIAL: AISI 4140 ALLOY STEEL
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: N/A
- 8) DIMENSIONAL LIMITS APPLY AFTER PLATING

DESIGN	KPT	<b>DART AEROSPACE LTD</b>	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	REV. F	
MFG. APPR.	FK	TOOL P/N RBW6521A00138-W142AH-001-3T	
APPROVED	<i>M. Lee</i>	SHEET 8 OF 10	
TITLE <b>NUT TORQUE TOOL</b>		SCALE NTS	
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8 7 6 5 4 3 2 1



NOTES:

- 1) MATERIAL: AISI 4140 ALLOY STEEL
- 2) HEAT TREAT: 32-36 RC
- 3) FINISH: ZINC PLATE PER ASTM B633 SC 2 TYPE 2 (BLACK CHROMATE CONVERSION COATING)
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK P/N, "RBW6521A00138-W142AH-001-3T-29", AS SHOWN
- 8) DIMENSIONAL LIMITS APPLY AFTER PLATING
- 9) HAND BUFF EDGE

DESIGN	KPT	<b>DART AEROSPACE LTD</b>	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	REV. F	
MFG. APPR.	FK	TOOL P/N RBW6521A00138-W142AH-001-3T	
APPROVED	<i>M.Lee</i>	SHEET 9 OF 10	
TITLE <b>NUT TORQUE TOOL</b>		SCALE	NTS
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C

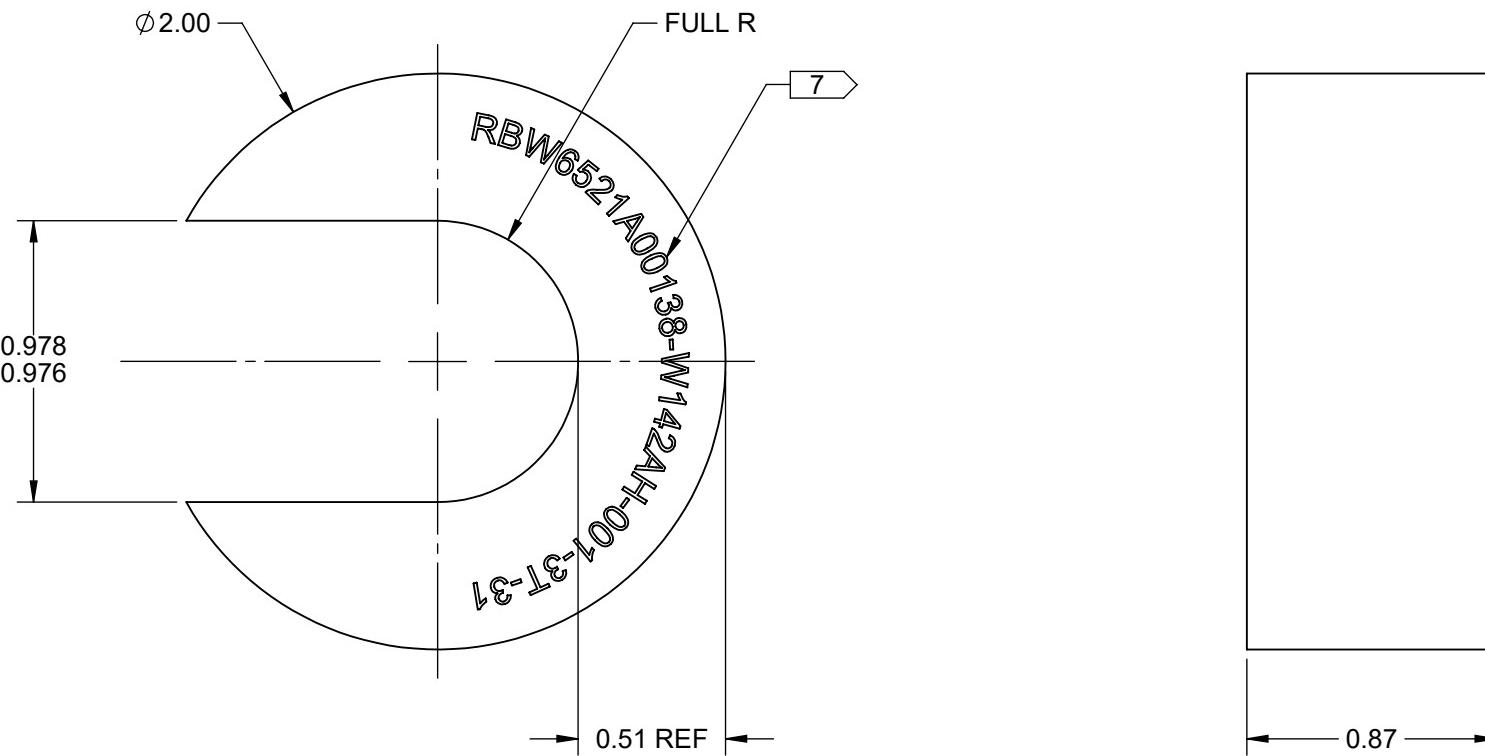
C

B

B

A

A



RBW6521A00138-W142AH-001-3T-31 SPACER

NOTES:

- 1) MATERIAL: 6061-T6 ALUMINUM
- 2) HEAT TREAT: N/A
- 3) FINISH: RED ANODIZE PER MIL-A-8625 TYPE II CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010
- 7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK P/N, "RBW6521A00138-W142AH-001-3T-31", AS SHOWN

DESIGN	KPT	<b>DART AEROSPACE LTD</b>	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	SAD	TOOL P/N	
MFG. APPR.	FK	REV. F	
APPROVED	<i>M Lee</i>	RBW6521A00138-W142AH-001-3T	
DATE	20.03.23	SHEET 10 OF 10	
TITLE		SCALE	NUT TORQUE TOOL
		NTS	
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